

20

1642

**Sterne Kessler  
Goldstein Fox**  
ATTORNEYS AT LAW



Robert Greene Sterne  
Edward J. Kessler  
Jorge A. Goldstein  
David K.S. Cornwell  
Robert W. Esmond  
Tracy-Gene G. Durkin  
Michele A. Cimbala  
Michael B. Ray  
Robert E. Sokohl  
Eric K. Steffe  
Michael Q. Lee  
Steven R. Ludwig  
John M. Covert  
Linda E. Alcorn  
Robert C. Millonig  
Lawrence B. Bugaisky  
Donald J. Featherstone  
Michael V. Messinger

Judith U. Kim  
Timothy J. Shea, Jr.  
Patrick E. Garrett  
Heidi L. Kraus  
Edward W. Yee  
Albert L. Ferro\*  
Donald R. Banowitz  
Peter A. Jackman  
Molly A. McCall  
Teresa U. Medler  
Jeffrey S. Weaver  
Kendrick P. Patterson  
Vincent L. Capuano  
Eldora Ellison Floyd  
Thomas C. Fiala  
Brian J. Del Buono  
Virgil Lee Beaton\*  
Kimberly N. Reddick

Theodore A. Wood  
Elizabeth J. Haanes  
Bruce E. Chalker  
Joseph S. Ostroff  
Frank R. Cottingham  
Christine M. Lhulier  
Rae Lynn Prengaman  
Jane Shershenovich\*  
Lawrence J. Carroll\*  
George S. Bardmesser  
Daniel A. Klein\*  
Rodney G. Maze  
Jason D. Eisenberg  
Michael D. Specht  
Andrea L. Kamage  
Tracy L. Muller\*  
Jon E. Wright\*  
LuAnne M. Yuricek\*

John J. Figueroa  
Ann E. Summerfield  
**Registered Patent Agents\***  
Karen R. Markowicz  
Nancy J. Leith  
Helene C. Carlson  
Gaby L. Longsworth  
Matthew J. Dowd  
Aaron L. Schwartz  
Angelique G. Uy  
Mary B. Tung  
Katrina Y. Pei  
Bryan L. Skelton  
Robert A. Schwartzman  
Timothy A. Doyle  
Jennifer R. Mahalingappa

Teresa A. Colella  
Jeffrey S. Lundgren  
Victoria S. Rutherford  
Eric D. Hayes

**Of Counsel**  
Kenneth C. Bass III  
Evan R. Smith

\*Admitted only in Maryland  
\*Admitted only in Virginia  
\*Practice Limited to  
Federal Agencies

December 3, 2003

**WRITER'S DIRECT NUMBER:**  
(202) 772-8544

**INTERNET ADDRESS:**  
MCIMBALA@SKGF.COM

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

**Art Unit 1642**

Re: U.S. Utility Patent Application  
Application No. 10/040,945; Filed: January 9, 2002  
For: **Modular Assembly of Antibody Genes, Antibodies Prepared Thereby  
and Use**  
Inventor: BETTER *et al.*  
Our Ref: 0610.005000I/MAC

Sir:

Transmitted herewith for appropriate action are the following documents:

1. First Supplemental Information Disclosure Statement;
2. A listing of the cited documents (AL1- AM7 and AR1-AS55) on form PTO-1449 (55 pages); and
3. Return Postcard.

It is respectfully requested that the attached postcard be stamped with the date of filing of these documents, and that it be returned to our courier. In the event that extensions of time are necessary to prevent abandonment of this patent application, then such extensions of time are hereby petitioned.

Commissioner for Patents  
December 3, 2003  
Page 2

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Michele A. Cimbala  
Attorney for Applicant  
Registration No. 33,851

MAC/krc

206120.1



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Robinson *et al.*

Appl. No. 10/040,945

Filed: January 9, 2002

For: **Modular Assembly of Antibody  
Genes, Antibodies Prepared  
Thereby and Use**

Confirmation No. 5282

Art Unit: 1642

Examiner: *To be assigned*

Atty. Docket: 0610.005000I/MAC

**First Supplemental Information Disclosure Statement**

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Sir:

Listed on accompanying Form PTO-1449 are documents that may be considered material to the examination of this application, in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98. Copies of these documents were filed in the parent application, US Application No. 09/722,315, filed on November 28, 2000.

Where the publication date of a listed document does not provide a month of publication, the year of publication of the listed document is sufficiently earlier than the effective U.S. filing date and any foreign priority date so that the month of publication is not in issue. Applicants have listed publication dates on the attached PTO-1449 based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

The Examiners's attention is directed to co-pending U.S. Patent Application No. 09/722,425, filed November 28, 2000, which is directed to related technical subject matter. The identification of the U.S. Patent Application is not to be construed as a waiver of

secrecy as to that application now or upon issuance of the present application as a patent. The Examiner is respectfully requested to consider the cited applications and the art cited therein during examination.

In accordance with 37 C.F.R. § 1.98(a)(3), Applicants' undersigned representative submits the following concise explanation of the relevance of the non-English language documents, Document Nos. AL3, AN3, AN5, AO5, and AO6 cited on Form PTO-1449.

Document No. AL3, Patent No. JP 60-155132, is in the Japanese language. This document relates to immunoglobulin production by recombinant host cells. An English language abstract is provided as Document No. AT53.

Document No. AN3, Patent No. JP 61-47500, is in the Japanese language. This document relates to chimeric antibodies and the production thereof. An English language abstract is provided as Document No. AR54.

Document No. AN5, Patent No. JP 62-502586, is in the Japanese language. This document relates to the construction of hybrid genes. An English language abstract is provided as Document No. AS54.

Document No. AO5, Patent No. JP 63-068087, is in the Japanese language. This document relates to a DNA and amino acid sequence that contributes to the expression of pectic acid lyase. An English language abstract is provided as Document No. AT54.

Document No. AO6, Patent No. EP 0 324 162, is in the German language. This document relates to the production of antibodies in bacteria. An English language abstract is provided as Document No. AT55.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

This statement should not be construed as a representation that a search has been made, or that information more material to the examination of the present patent application does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith. It is further understood that the Examiner will consider information that had been cited or submitted to the U.S. Patent and Trademark Office in a prior application relied on under 35 U.S.C. § 120. 1138 OG 37, 38 (May 19, 1992).

This First Supplemental Information Disclosure Statement is being filed within three months of the date of filing of a national application. No statement or fee is required.

It is respectfully requested that the Examiner initial and return a copy of the enclosed PTO-1449, and to indicate in the official file wrapper of this patent application that the documents have been considered.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Michele A. Cimbala  
Attorney for Applicants  
Registration No. 33,851

Date: Dec. 3, 2003

1100 New York Avenue, N.W.  
Washington, D.C. 20005-3934  
(202) 371-2600



FORM PTO-1449 FIRST SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT	ATTY. DOCKET NO. 0610.005000I	APPLICATION NO. 10/040,945
	APPLICANT ROBINSON et al.	
	FILING DATE January 9, 2002	GROUP 1642

### U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

### FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL1	EP 0 048 970 A2	04/07/1982	Europe			Yes No
	AM1	EP 0 055 942 B1	07/14/1982	Europe			Yes No
	AN1	EP 0 088 994 B1	09/21/1983	Europe			Yes No
	AO1	WO 83/03971	11/24/1983	WIPO			Yes No
	AP1	EP 0 102 634 A1	03/14/1984	Europe			Yes No

### OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

AR	<u>1</u>	Abrahmsén, L. et al., "Secretion of heterologous gene products to the culture medium of Escherichia coli," Nucl. Acids Res. 14(18):7487-7500, Oxford University Press, Oxford, England (August 1986).
AS	<u>1</u>	Alexander, A. et al., "γ heavy chain disease in man: cDNA sequence supports partial gene deletion model," Proc. Natl. Acad. Sci. USA 79:3260-3264, National Academy of Science of the USA, Washington, D.C. (1982).
AT	<u>1</u>	Amster, O. et al., "Synthesis of part of a mouse immunoglobulin in light chain in a bacterial clone," Nucl. Acids Res. 8:2055-2065, Oxford University Press, Oxford, England (1980).

EXAMINER

DATE CONSIDERED

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449  
FIRST SUPPLEMENTAL  
INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.  
0610.005000I

APPLICATION NO.  
10/040,945

APPLICANT  
ROBINSON et al.

FILING DATE  
January 9, 2002

GROUP  
1642

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL2	EP 0 120 694 A2	10/03/1984	Europe			Yes No
	AM2	GB 2 137 631 A	10/10/1984	Great Britain			Yes No
	AN2	EP 0 125 023 A1	11/14/1984	Europe			Yes No
	AO2	EP 0 126 338 A1	11/28/1984	Europe			Yes No
	AP2	EP 0 133 321 A1	02/20/1985	Europe			Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	2	Anand, N.N. et al., "Synthesis and expression in <i>Escherichia coli</i> of cistronic DNA encoding an antibody fragment specific for <i>Salmonella</i> serotype B O-antigen," <i>Gene</i> 100:39-44, Elsevier Science Publishers B.V., Amsterdam, Netherlands (June 1991).
	AS	2	Anand, N.N. et al., "Bacterial Expression and Secretion of Various Single-chain Fv Genes Encoding Proteins Specific for a <i>Salmonella</i> Serotype B O-Antigen," <i>J. Biol. Chem.</i> 266(32):21874-21879, American Society for Biochemistry and Molecular Biology, Inc., Baltimore, MD (November 1991).
	AT	2	Axelsson, K., "Bacterial Lipopolysaccharides and Glutathione Mixed Disulfides as Possible Contaminants of Human Growth Hormone Produced with the Use of <i>E. coli</i> k12," <i>Acta Chemica Scandinavica Series B</i> 39:69-71, Munksgaard International Publishers, Copenhagen, Denmark (1985), Communication at the Meeting of the Swedish Biochemical Society in Stockholm Sweden, August 42-25th, 1984.

EXAMINER

DATE CONSIDERED

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449  
FIRST SUPPLEMENTAL  
INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.  
0610.005000I

APPLICATION NO.  
10/040,945

APPLICANT  
ROBINSON et al.

FILING DATE  
January 9, 2002

GROUP  
1642

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL3	JP 60-155132	08/15/1985	Japan			Yes X No
	AM3	EP 0 154 539 A2	09/11/1985	Europe			Yes No
	AN3	JP 61-47500	03/07/1986	Japan			Yes X No
	AO3	EP 0 171 496 A3	02/19/1986	Europe			Yes No
	AP3	EP 0 173 494 A3	03/05/1986	Europe			Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>3</u>	Banerji, J. et al., "A Lymphocyte-Specific Cellular Enhancer Is Located Downstream of the Joining Region in Immunoglobulin Heavy Chain Genes," <i>Cell</i> 33:729-740, Cell Press, Cambridge, MA (1983).
	AS	<u>3</u>	Barbas III, C.F. et al., "Assembly of combinatorial antibody libraries on phage surfaces: The gene III site," <i>Proc. Natl. Acad. Sci. USA</i> 88(18):7978-7982, National Academy of Sciences of the USA, Washington, D.C. (September 1991).
	AT	<u>3</u>	Bebbington, C.R. et al., "High-Level Expression of A Recombinant Antibody From Myeloma Cells Using A Glutamine Synthetase Gene As An Amplifiable Selectable Marker," <i>Bio/Technol.</i> 10:169-175, Nature Publishing Co., New York (February 1992).

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.





FORM PTO-1449 FIRST SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT	ATTY. DOCKET NO. 0610.005000I	APPLICATION NO. 10/040,945
	APPLICANT ROBINSON et al.	
	FILING DATE January 9, 2002	GROUP 1642

### U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

### FOREIGN PATENT DOCUMENTS

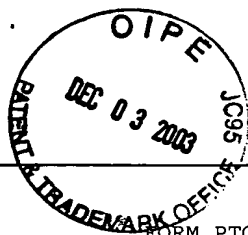
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL4	WO 86/01533	03/13/1986	WIPO			Yes No
	AM4	EP 0 184 187 A2	06/11/1986	Europe			Yes No
	AN4	EP 0 194 276 B1	09/17/1986	Europe			Yes No
	AO4	WO 86/05513	09/25/1986	WIPO			Yes No
	AP4	WO 86/05812	10/09/1986	WIPO			Yes No

### OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>4</u>	Beckwith, J. and S.Ferro-Novick, "Genetic Studies on Protein Export in Bacteria," <i>Curr. Topics Microbiol. Immunol.</i> 125:5-27, Springer Verlag, Berlin, Germany (July 1986).
	AS	<u>4</u>	Beggs, J.D., "Multiple-copy Yeast Plasmid Vectors," <i>Mol. Genet. Yeast, Alfred Benzon Symp.</i> 16:383-389, Munksgaard, Copenhagen, Denmark (1981).
	AT	<u>4</u>	Bernstein, K.E., et al., "Nucleotide Sequence of a Rabbit IgG Heavy Chain from the Recombinant F-I Haplotype," <i>Immunogenet.</i> 18(4):387-397, Springer-Verlag, Berlin, Germany (1983).

EXAMINER	DATE CONSIDERED
----------	-----------------

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449 FIRST SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT	ATTY. DOCKET NO. 0610.005000I	APPLICATION NO. 10/040,945
	APPLICANT ROBINSON et al.	
	FILING DATE January 9, 2002	GROUP 1642

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

## FOREIGN PATENT DOCUMENTS

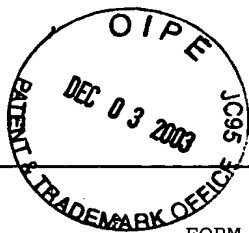
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL5	WO 87/02671	05/07/1987	WIPO			Yes No
	AM5	EP 0 234 592 A1	09/02/1987	Europe			Yes No
	AN5	JP 62-502586	10/08/1987	Japan			Yes X No
	AO5	JP 63-68087	03/26/1988	Japan			Yes X No
	AP5	EP 0 266 663	05/11/1988	Europe			Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>5</u>	Better, M. et al., "Escherichia coli Secretion of an Active Chimeric Antibody Fragment," <i>Science</i> 240:1041-1043, American Association for the Advancement of Science, Washington, D.C. (May 1988).
	AS	<u>5</u>	Better, M. and A.H. Horwitz, "Expression of Engineered Antibodies and Antibody Fragments in Microorganisms," <i>Meth. Enzymol.</i> 178:476-496, Academic Press Inc., New York, NY (November 1989).
	AT	<u>5</u>	Better, M. et al., "Production And Scale Up of Chimeric Fab Fragments From Bacteria," <i>Advances in Gene Technology: The Molecular Biology of Immune Diseases and the Immune Response, Proc. Of the 1990 Miami Bio/Technol. Winter Symp.</i> 10:105. IRL Press. New York (July 1990).

EXAMINER	DATE CONSIDERED
----------	-----------------

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449 FIRST SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT	ATTY. DOCKET NO. 0610.005000I	APPLICATION NO. 10/040,945
	APPLICANT ROBINSON et al.	
	FILING DATE January 9, 2002	GROUP 1642

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL6	EP 0 278 355 A2	08/17/1988	Europe			Yes No
	AM6	WO 89/00999	02/09/1989	WIPO			Yes No
	AN6	WO 89/06283	07/13/1989	WIPO			Yes No
	AO6	EP 0 324 162 B1	07/19/1989	Europe			Yes X No
	AP6	WO 92/22324	12/23/1992	WIPO			Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	6	Better, M. et al., "Potent anti-CD5 ricin A chain immunoconjugates from bacterially produced Fab' and F(ab') <sub>2</sub> ," <i>Proc. Natl. Acad. Sci. USA</i> 90:457-461, National Academy of Sciences of the USA, Washington, D.C. (January 1993).
	AS	6	Better, M. and A.H. Horwitz, "In Vivo Expression of Correctly Folded Antibody Fragments from Microorganisms," Ch. 16, in: <i>Protein Folding - In Vivo and In Vitro</i> , Cleland, J.L., ed., Washington, D.C., American Chemical Society pp. 203-217 (April 1993).
	AT	6	Boss, M.A. et al., "Assembly of functional antibodies from immunoglobulin heavy and light chains synthesised in E. coli," <i>Nucl. Acids Res.</i> 12(9):3791-3806, Oxford University Press, Oxford, England (May 1984).

EXAMINER	DATE CONSIDERED
----------	-----------------

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449  <u>FIRST SUPPLEMENTAL</u> <u>INFORMATION DISCLOSURE STATEMENT</u>	ATTY. DOCKET NO. 0610.0050001	APPLICATION NO. 10/040,945
	APPLICANT ROBINSON et al.	
	FILING DATE January 9, 2002	GROUP 1642

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL7	WO 93/11794	06/24/1993	WIPO			Yes No
	AM7	WO 93/15210	08/05/1993	WIPO			Yes No
	AN1						Yes No
	AO1						Yes No
	AP1						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	7	Boulianne, G.L. et al., "Production of functional chimeric mouse/human antibody," <i>Nature</i> 312:643-646, Macmillan Publishers Ltd., London, England (December 1984).
	AS	7	Briggs, M.S. and L.M. Gierasch, "Molecular Mechanisms of Protein Secretion: The Role of the Signal Sequence," <i>Adv. Prot. Chem.</i> 38:109-180, Academic Press, Inc., San Diego, CA (January 1986).
	AT	7	Brown, N.A. et al., "Immunoglobulin J <sub>H</sub> , C <sub>H</sub> , and C <sub>γ</sub> gene rearrangements in human B lymphocytes clonally transformed by Epstein-Barr virus," <i>Proc. Natl. Acad. Sci. USA</i> 82:556-560, National Academy of Sciences of the USA, Washington, D.C. (January 1985).

EXAMINER	DATE CONSIDERED
----------	-----------------

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

FORM PTO-1449

FIRST SUPPLEMENTAL  
INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.  
 0610.005000I

APPLICATION NO.  
 10/040,945

APPLICANT  
 ROBINSON et al.

FILING DATE  
 January 9, 2002

GROUP  
 1642

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

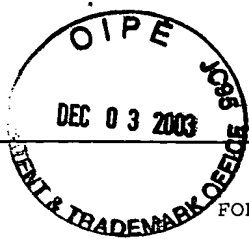
	AR	8	Cabilly, S. et al., "Generation of antibody activity from immunoglobulin polypeptide chains produced in <i>Escherichia coli</i> ," <i>Proc. Natl. Acad. Sci. USA</i> 81:3273-3277, National Academy of Sciences of the USA, Washington, D.C. (June 1984).
	AS	8	Calos, M.P. et al., "High mutation frequency in DNA transfected into mammalian cells," <i>Proc. Natl. Acad. Sci. USA</i> 80:3015-3019, National Academy of Sciences of the USA, Washington, D.C. (May 1983).
	AT	8	Carter, P. et al., "High level <i>Escherichia coli</i> Expression and Production of a Bivalent Humanized Antibody Fragment," <i>Bio/Technol.</i> 10:163-167, Nature Publishing Co., New York (February 1992).

EXAMINER

DATE CONSIDERED

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.





FORM PTO-1449 <b>FIRST SUPPLEMENTAL          INFORMATION DISCLOSURE STATEMENT</b>	ATTY. DOCKET NO. 0610.005000I	APPLICATION NO. 10/040,945
	APPLICANT ROBINSON et al.	
	FILING DATE January 9, 2002	GROUP 1642

### U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

### FOREIGN PATENT DOCUMENTS

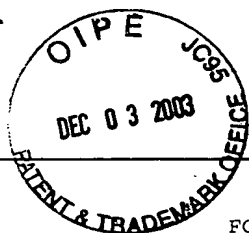
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

### OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

AR	<u>2</u>	Chan, S.J. et al., "Biosynthesis and periplasmic segregation of human proinsulin in <i>Escherichia coli</i> ," <i>Proc. Natl. Acad. Sci. USA</i> 78(9):5401-5405, National Academy of Sciences of the USA, Washington, D.C. (1981).
AS	<u>2</u>	Clackson, T. et al., "Making antibody fragments using phage display libraries," <i>Nature</i> 352:624-628, Macmillan Publishers Ltd., London, England (August 1991).
AT	<u>2</u>	Clontech Catalog, "Bacterial Strains" and "Numerical Index," pp. 224 and 277, respectively, Clontech Laboratories, Inc., Palo Alto, CA (July 1993).

EXAMINER	DATE CONSIDERED
----------	-----------------

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449 <b>FIRST SUPPLEMENTAL          INFORMATION DISCLOSURE STATEMENT</b>	ATTY. DOCKET NO. 0610.005000I	APPLICATION NO. 10/040,945
	APPLICANT ROBINSON et al.	
	FILING DATE January 9, 2002	GROUP 1642

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

## FOREIGN PATENT DOCUMENTS

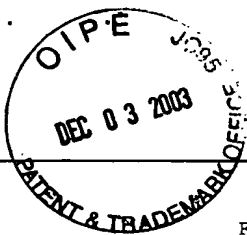
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

AR	<u>10</u>	Denéfle, P. et al., "Heterologous protein export in <i>Escherichia coli</i> : influence of bacterial signal peptides on the export of human interleukin 1 $\beta$ ," <i>Gene</i> 85:499-510, Elsevier Science Publishers B.V., Amsterdam, Netherlands (December 1989).
AS	<u>10</u>	De Sutter, K. et al., "Production of functionally active murine and murine: human chimeric F(ab') <sub>2</sub> fragments on COS-1 cells," <i>Gene</i> 113:223-230, Elsevier Science Publishers B.V., Amsterdam, Netherlands (April 1992).
AT	<u>10</u>	Dickson, S., "Scientist Produce Chimeric Monoclonal Abs," <i>Genetic Engineering News</i> 5(3):1 and 33. Mary Ann Leibert, Inc., Publishers, Larchmont, NY (March 1985).

EXAMINER	DATE CONSIDERED
----------	-----------------

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449 <b>FIRST SUPPLEMENTAL          INFORMATION DISCLOSURE STATEMENT</b>	ATTY. DOCKET NO. 0610.005000I	APPLICATION NO. 10/040,945
	APPLICANT ROBINSON et al.	
	FILING DATE January 9, 2002	GROUP 1642

### U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

### FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

### OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>11</u>	Dolby, T.W. et al., "Cloning and partial nucleotide sequence of human immunoglobulin $\mu$ chain cDNA from B cells and mouse-human hybridomas," <i>Proc. Natl. Acad. Sci. USA</i> 77(10):6027-6031, National Academy of Sciences of the USA, Washington, D.C. (1980).
	AS	<u>11</u>	Early, P and L. Hood, "Mouse Immunoglobulin Genes," in: <i>Genetic Engineering - Principles and Methods</i> , Volume 3, Setlow, J.K. and A. Hollander, eds., New York: Plenum Press pp.157-188 (1981).
	AT	<u>11</u>	Edelman, G.M. et al., "The Covalent Structure of an Entire $\gamma$ G Immunoglobulin Molecule," <i>Proc. Natl. Acad. Sci. USA</i> 63(1):78-85, National Academy of Sciences of the USA, Washington, D.C. (1969).

EXAMINER	DATE CONSIDERED
----------	-----------------

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.





FORM PTO-1449

FIRST SUPPLEMENTAL  
INFORMATION DISCLOSURE STATEMENTATTY. DOCKET NO.  
0610.005000IAPPLICATION NO.  
10/040,945APPLICANT  
ROBINSON et al.FILING DATE  
January 9, 2002GROUP  
1642

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>12</u>	Edens, L. et al., "Cloning of cDNA encoding the sweet-tasting plant protein thaumatin and its expression in Escherichia coli," <i>Gene</i> 18:1-12, Elsevier Science Publishers B.V., Amsterdam, Netherlands (1982).
	AS	<u>12</u>	Ellison, J. and L. Hood, "Linkage and sequence homology of two human immunoglobulin $\gamma$ heavy chain constant region genes," <i>Proc. Natl. Acad. Sci. USA</i> 79:1984-1988, National Academy of Sciences of the USA, Washington, D.C. (1982).
	AT	<u>12</u>	Ellison, J.W. et al., "The nucleotide sequence of a human immunoglobulin C $\gamma_1$ gene," <i>Nucl. Acids Res.</i> 10(13):4071-4079, Oxford University Press, Oxford, England (1982).

EXAMINER

DATE CONSIDERED

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449

FIRST SUPPLEMENTAL  
INFORMATION DISCLOSURE STATEMENTATTY. DOCKET NO.  
0610.005000IAPPLICATION NO.  
10/040,945APPLICANT  
ROBINSON et al.FILING DATE  
January 9, 2002GROUP  
1642

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>13</u>	Ferenci, T. and T.J. Silhavy, "Sequence Information Required for Protein Translocation from the Cytoplasm," <i>J. Bacteriol.</i> 169(12):5339-5342, American Society for Microbiology, Baltimore, MD (December 1987).
	AS	<u>13</u>	Flamez, D. et al., "Production in Escherichia coli of a functional murine and murein: :human chimeric F(ab') <sub>2</sub> fragment and mature antibody directed against human placental alkaline phosphatase," <i>J. Biotechnol.</i> 42:133-143, Elsevier Science Publishers, Amsterdam, Netherlands (September 1995).
	AT	<u>13</u>	Fraser, T.H. and B.J. Bruce, "Chicken ovalbumin is synthesized and secreted by Escherichia coli," <i>Proc. Natl. Acad. Sci. USA</i> 75(12):5936-5940, National Academy of Sciences of the USA, Washington, D.C. (1978).

EXAMINER

DATE CONSIDERED

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449  <u>FIRST SUPPLEMENTAL</u> <u>INFORMATION DISCLOSURE STATEMENT</u>	ATTY. DOCKET NO. 0610.005000I	APPLICATION NO. 10/040,945
	APPLICANT ROBINSON et al.	
	FILING DATE January 9, 2002	GROUP 1642

### U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

### FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

### OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>14</u>	Ghera, R. et al., eds., American Type Culture Collection - Catalogue of Bacteria and Phages, Seventeenth edition, p. 97, American Type Culture Collection, Rockville, MD (February 1989).
	AS	<u>14</u>	Ghrayeb, J., et al., "Secretion Cloning Vectors in Escherichia coli," <i>EMBO J.</i> 3:2437-2442, IRL Press Limited, Oxford, England (October 1984).
	AT	<u>14</u>	Gillam, S. and M. Smith, "Site-Specific Mutagenesis Using Synthetic Oligodeoxyribonucleotide Primers: I. Optimum Conditions And Minimum Oligodeoxyribonucleotide Length," <i>Gene</i> 8:81-97, Elsevier Science Publishers B.V., Amsterdam, Netherlands (1979).

EXAMINER	DATE CONSIDERED
----------	-----------------

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449  <u>FIRST SUPPLEMENTAL</u> <u>INFORMATION DISCLOSURE STATEMENT</u>	ATTY. DOCKET NO. 0610.005000I	APPLICATION NO. 10/040,945
APPLICANT ROBINSON et al.		
FILING DATE January 9, 2002		GROUP 1642

#### U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA					
	AB					
	AC					
	AD					
	AE					
	AF					
	AG					
	AH					
	AI					
	AJ					
	AK					

#### FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL					Yes No
	AM					Yes No
	AN					Yes No
	AO					Yes No
	AP					Yes No

#### OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	15	Gillies, S.D. et al., "A Tissue-specific Transcription Enhancer Element Is Located in the Major Intron of a Rearranged Immunoglobulin Heavy Chain Gene," Cell 33:717-728, Cell Press, Cambridge, MA (1983).
	AS	15	Gillies, S.D. and J.S. Wesolowski, "Antigen binding and biological activities of engineered mutant chimeric antibodies with human tumor specificities," Hum. Antibod. Hybridomas 1:47-54, Butterworth Heinemann Publishers, Stoneham, MA (January 1990).
	AT	15	Gray, G.L. et al., "Periplasmic production of correctly processed human growth hormone in Escherichia coli: natural and bacterial signal sequences are interchangeable," Gene 39:247-254, Elsevier Science Publishers B.V., Amsterdam, Netherlands (January 1985).

EXAMINER	DATE CONSIDERED
----------	-----------------

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449

FIRST SUPPLEMENTAL  
INFORMATION DISCLOSURE STATEMENT

 ATTY. DOCKET NO.  
0610.005000I

 APPLICATION NO.  
10/040,945

 APPLICANT  
ROBINSON et al.

 FILING DATE  
January 9, 2002

 GROUP  
1642

**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

**FOREIGN PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

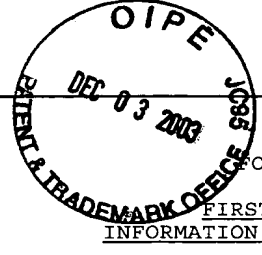
**OTHER (Including Author, Title, Date, Pertinent Pages, etc.)**

	AR	<u>16</u>	Hendershot, L. et al., "The role of immunoglobulin heavy chain binding protein in immunoglobulin transport," <i>Immunol. Today</i> 8:111-114, Elsevier Science Publishers, Barking, England (August 1987).
	AS	<u>16</u>	Hieter, P.A. et al., "Cloned Human and Mouse Kappa Immunoglobulin Constant and J Region Genes Conserve Homology in Functional Segments," <i>Cell</i> 22:197-207, Cell Press, Cambridge, MA (1980).
	AT	<u>16</u>	Hieter, P.A. et al., "Evolution of Human Immunoglobulin K J Region Genes," <i>J. Biol. Chem.</i> 257(3):1516-1522, <i>American Society for Biochemistry and Molecular Biology, Inc.</i> , Baltimore, MD (1982).

EXAMINER

DATE CONSIDERED

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

	ATTY. DOCKET NO. 0610.005000I	APPLICATION NO. 10/040,945
	APPLICANT ROBINSON et al.	
	FILING DATE January 9, 2002	GROUP 1642
	FORM PTO-1449 FIRST SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT	

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

## FOREIGN PATENT DOCUMENTS

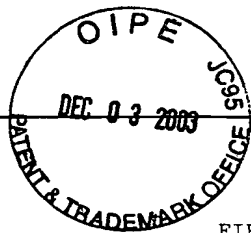
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

AR	<u>17</u>	Holland, I.B., et al., "Secretion of Proteins From Bacteria," <i>Bio/Technol.</i> 4:427-431, Nature Publishing Co., New York (May 1986).
AS	<u>17</u>	Holland, I.B., "Secretion of Escherichia coli haemolysis," <i>Biochem. Soc. Trans.</i> 17(2):323-325, Portland Press On The Behalf Of The Biochemical Society, London, England (April 1989).
AT	<u>17</u>	Horwitz, A.H. et al., "Secretion of functional antibody and Fab fragment from yeast cells," <i>Proc. Natl. Acad. Sci. USA</i> 85:8678-8682, National Academy of Sciences of the USA, Washington, D.C. (November 1988).

EXAMINER	DATE CONSIDERED
----------	-----------------

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449

**FIRST SUPPLEMENTAL  
INFORMATION DISCLOSURE STATEMENT**

ATTY. DOCKET NO.  
0610.005000I

APPLICATION NO.  
10/040,945

APPLICANT  
ROBINSON et al.

FILING DATE  
January 9, 2002

GROUP  
1642

**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

**FOREIGN PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

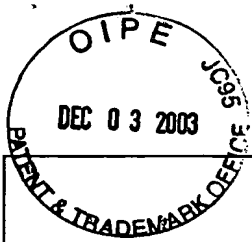
**OTHER (Including Author, Title, Date, Pertinent Pages, etc.)**

	AR	<u>18</u>	Hsiung, H.M. et al., "High-Level Expression, Efficient Secretion And Folding Of Human Growth Hormone In Escherichia coli," <i>Bio/Technol.</i> 4:991-995, Nature Publishing Co., New York (November 1986).
	AS	<u>18</u>	Humphreys, D.P. et al., "Formation of dimeric Fabs in Escherichia coli: effect of hinge size and isotype, presence of interchain disulphide bond, Fab' expression levels, tail piece sequences and growth conditions," <i>J. Immunol. Methods</i> 209:192-202, North-Holland Pub. Co., Amsterdam, Netherlands (December 1997).
	AT	<u>18</u>	Huse, W.D. et al., "Generation of a Large Combinatorial Library of the Immunoglobulin Repertoire in Phage Lambda," <i>Science</i> 246:1275-1281, American Association for the Advancement of Science, Washington, D.C. (December 1989).

EXAMINER

DATE CONSIDERED

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449

FIRST SUPPLEMENTAL  
INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.  
0610.005000I

APPLICATION NO.  
10/040,945

APPLICANT  
ROBINSON et al.

FILING DATE  
January 9, 2002

GROUP  
1642

**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

**FOREIGN PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

**OTHER (Including Author, Title, Date, Pertinent Pages, etc.)**

AR	<u>19</u>	Itakura, K. et al., "Synthesis And Use Of Synthetic Oligonucleotides," <i>Ann. Rev. Biochem.</i> 53:323-356, Annual Reviews, Inc., Palo Alto, CA (January 1984).
AS	<u>19</u>	Johnston, S. et al., "High-level expression of M13 gene II protein from an inducible polycistronic messenger RNA," <i>Gene</i> 34:137-145, Elsevier Science Publishers B.V., Amsterdam, Netherlands (January 1985).
AT	<u>19</u>	Jones, P.T. et al., "Replacing the complementarity-determining regions in a human antibody with those from a mouse," <i>Nature</i> 321:522-525, Macmillan Publishers Ltd., Loundon, England (May 1986).

EXAMINER

DATE CONSIDERED

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.





FORM PTO-1449

FIRST SUPPLEMENTAL  
INFORMATION DISCLOSURE STATEMENTATTY. DOCKET NO.  
0610.005000IAPPLICATION NO.  
10/040,945APPLICANT  
ROBINSON et al.FILING DATE  
January 9, 2002GROUP  
1642

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>20</u>	Kabat, E.A. et al., "Sequences Of Proteins Of Immunological Interest," U.S. Department of Health, Introduction, index, pp. 275-276, National Institute of Health, Bethesda, MD (1983).
	AS	<u>20</u>	Kato, C. et al., "Construction of an excretion vector and extracellular production of human growth hormone from Escherichia coli," <i>Gene</i> 54:197-202, Elsevier Science Publishers B.A., Amsterdam, Netherlands (July 1987).
	AT	<u>20</u>	Keen, N.T. and S. Tamaki, "Structure of Two Pectate Lyase Genes from Erwinia chrysanthemi EC16 and their High-level Expression in Escherichia coli," <i>J. Bacteriol.</i> 168(2):595-606, American Society for Microbiology, Baltimore, MD (November 1986).

EXAMINER

DATE CONSIDERED

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449

FIRST SUPPLEMENTAL  
INFORMATION DISCLOSURE STATEMENTATTY. DOCKET NO.  
0610.005000IAPPLICATION NO.  
10/040,945APPLICANT  
ROBINSON et al.FILING DATE  
January 9, 2002GROUP  
1642

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

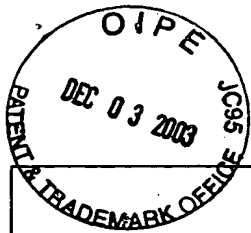
## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>21</u>	Kenten, J. et al., "Properties of a human immunoglobulin $\epsilon$ -chain fragment synthesized in <i>Escherichia coli</i> ," <i>Proc. Natl. Acad. Sci. USA</i> 81:2955-2959, National Academy of Sciences of the USA, Washington, D.C. (May 1984).
	AS	<u>21</u>	King, D.J. et al., "Expression, purification and characterization of a mouse-human chimeric antibody and chimeric Fab' fragment," <i>Biochem. J.</i> 281:317-323, London Portland Press On Behalf Of The Biochemical Society, London, England (January 1992).
	AT	<u>21</u>	Klausner, A., "Genentech Makes Monoclonal Precursors From <i>E. coli</i> ," <i>Bio/Technol.</i> 1(5):396-397, Nature Publishing Co., New York (May 1983).

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449

**FIRST SUPPLEMENTAL  
INFORMATION DISCLOSURE STATEMENT**

ATTY. DOCKET NO.  
0610.005000I

APPLICATION NO.  
10/040,945

APPLICANT  
ROBINSON et al.

FILING DATE  
January 9, 2002

GROUP  
1642

**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

**FOREIGN PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

**OTHER (Including Author, Title, Date, Pertinent Pages, etc.)**

	AR	<u>22</u>	Kniskern, P.J. et al., "Unusually high-level expression of a foreign gene (hepatitis B virus core antigen) in <i>Saccharomyces cerevisiae</i> ," Gene 46:135-141, Elsevier Science Publishers B.V., Amsterdam, Netherlands (December 1986).
	AS	<u>22</u>	Koshland, D. and D. Botstein, "Secretion of Beta-Lactamase Requires the Carboxy End of the Protein," Cell 20:749-760, Cell Press, Cambridge, MA (1980).
	AT	<u>22</u>	Kramer, W. et al., "The gapped duplex DNA approach to oligonucleotide-directed mutation construction," Nucl. Acids Res. 12(24):9441-9456, Oxford University Press, Oxford, England (December 1984).

EXAMINER

DATE CONSIDERED

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449

FIRST SUPPLEMENTAL  
INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.  
0610.005000I

APPLICATION NO.  
10/040,945

APPLICANT  
ROBINSON et al.

FILING DATE  
January 9, 2002

GROUP  
1642

**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

**FOREIGN PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

**OTHER (Including Author, Title, Date, Pertinent Pages, etc.)**

	AR	<u>23</u>	Kurokawa, T. et al., "Expression of human immunoglobulin E $\epsilon$ chain cDNA in <i>E. coli</i> ," <i>Nucl. Acids Res.</i> 11(10):3077-3085, Oxford university Press, Oxford, England (1983).
	AS	<u>23</u>	LaVallie, E.R. et al., "A Thioredoxin Gene Fusion Expression System That Circumvents Inclusion Body Formation in the <i>E. coli</i> Cytoplasm," <i>Bio/Technol.</i> 11:187-193, Nature Publishing Co., New York (February 1993).
	AT	<u>23</u>	Lei, S.-P. et al., "Cloning of the pectate lyase genes from <i>Erwinia carotovora</i> and their expression in <i>Escherichia coli</i> ," <i>Gene</i> 35:63-70, Elsevier Science Publishers B.V., Amsterdam, Netherlands (January 1985).

EXAMINER

DATE CONSIDERED

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449

FIRST SUPPLEMENTAL  
INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.  
0610.005000I

APPLICATION NO.  
10/040,945

APPLICANT  
ROBINSON et al.

FILING DATE  
January 9, 2002

GROUP  
1642

**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

**FOREIGN PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

**OTHER (Including Author, Title, Date, Pertinent Pages, etc.)**

	AR	<u>24</u>	Lei, S.-P. et al., "Characterization of the <i>Erwinia carotovora</i> pelB Gene and Its Product Pectate Lyase," <i>J. Bacteriol.</i> 169(9):4379-4383, American Society for Microbiology, Baltimore, MD (September 1987).
	AS	<u>24</u>	Lei, S.-P. et al., "Characterization of the <i>Erwinia carotovora</i> peh gene and its product polygalacturonase," <i>Gene</i> 117:119-124. Elsevier Science Publishers B.V., Amsterdam, Netherlands (August 1992).
	AT	<u>24</u>	Li, P. et al., "Alteration of the amino terminus of the mature sequence of a periplasmic protein can severely affect protein export in <i>Escherichia coli</i> ," <i>Proc. Natl. Acad. Sci. USA</i> 85(20):7685-7689, National Academy of Sciences of the USA, Washington, D.C. (October 1988).

EXAMINER

DATE CONSIDERED

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449

**FIRST SUPPLEMENTAL  
INFORMATION DISCLOSURE STATEMENT**

ATTY. DOCKET NO.  
0610.005000I

APPLICATION NO.  
10/040,945

APPLICANT  
ROBINSON et al.

FILING DATE  
January 9, 2002

GROUP  
1642

**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

**FOREIGN PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

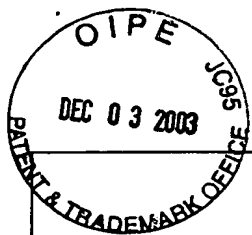
**OTHER (Including Author, Title, Date, Pertinent Pages, etc.)**

	AR	<u>25</u>	Liu, F.-T. et al., "Expression of biologically active fragment of human IgE $\epsilon$ chain in Escherichia coli," <i>Proc. Natl. Acad. Sci. USA</i> 81:5369-5375, National Academy of Sciences of the USA, Washington, D.C. (September 1984).
	AS	<u>25</u>	Liu, A.Y. et al., "Chimeric mouse-human IgG1 antibody that can mediate lysis of cancer cells," <i>Proc. Natl. Acad. Sci. USA</i> 84:3439-3443, National Academy of Sciences of the USA, Washington, D.C. (May 1987).
	AT	<u>25</u>	Liu, A.Y. et al., "Expression of mouse: human immunoglobulin heavy-chain cDNA in lymphoid cells," <i>Gene</i> 54:33-40, Elsevier Science Publishers B.V., Amsterdam, Netherlands (July 1987).

EXAMINER

DATE CONSIDERED

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449

**FIRST SUPPLEMENTAL  
INFORMATION DISCLOSURE STATEMENT**

ATTY. DOCKET NO.  
0610.005000I

APPLICATION NO.  
10/040,945

APPLICANT  
ROBINSON et al.

FILING DATE  
January 9, 2002

GROUP  
1642

**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

**FOREIGN PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

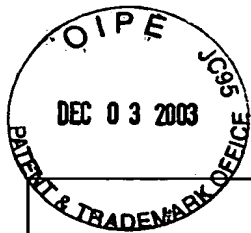
**OTHER (Including Author, Title, Date, Pertinent Pages, etc.)**

	AR	<u>26</u>	Liu, A.Y. et al., "Production Of A Mouse-Human Chimeric Monoclonal Antibody To CD20 With Potent Fc-Dependent Biologic Activity," <i>J. Immunol.</i> 139:3521-3526, American Association of Immunologists, Baltimore, MD (November 1987).
	AS	<u>26</u>	Lo, K.-M. et al., "Expression and secretion of an assembled tetrameric CH2-deleted antibody in E. coli," <i>Hum. Antibod. Hybridomas</i> 3:123-128, Butterworth Heinemann Publishers, Stoneham, MA (July 1992).
	AT	<u>26</u>	Lyons, A. et al., "Site-specific attachment to recombinant antibodies via introduced surface cysteine residues," <i>Prot. Engin.</i> 3:703-708, Oxford University Press, Oxford, England (August 1990).

EXAMINER

DATE CONSIDERED

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449

FIRST SUPPLEMENTAL  
INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.  
0610.005000I

APPLICATION NO.  
10/040,945

APPLICANT  
ROBINSON et al.

FILING DATE  
January 9, 2002

GROUP  
1642

**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

**FOREIGN PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

**OTHER (Including Author, Title, Date, Pertinent Pages, etc.)**

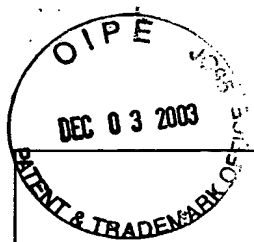
	AR	<u>27</u>	MacKenzie, C.R. et al., "Effect of C <sub>A</sub> -C <sub>1</sub> Domain Switching on Fab Activity and Yield in <i>Escherichia coli</i> : Synthesis and Expression of Genes Encoding Two Anti-Carbohydrate Fabs," <i>Bio/Technol.</i> 12:390-395, Nature Publishing Co., New York (April 1994).
	AS	<u>27</u>	Mackman, N. et al., "Release of a chimeric protein into the medium from <i>Escherichia coli</i> using the C-terminal secretion signal of haemolysis," <i>EMBO J.</i> 6(9):2835-2841, IRL Press Limited, Oxford, England (September 1987).
	AT	<u>27</u>	Maki, R. et al., "The Role of DNA Rearrangement and Alternative RNA Processing in the Expression of Immunoglobulin Delta Genes," <i>Cell</i> 24(2):353-365, Cell Press, Cambridge, MA (1981).

EXAMINER

DATE CONSIDERED

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.





FORM PTO-1449

**FIRST SUPPLEMENTAL  
INFORMATION DISCLOSURE STATEMENT**

ATTY. DOCKET NO.  
0610.005000I

APPLICATION NO.  
10/040,945

APPLICANT  
ROBINSON et al.

FILING DATE  
January 9, 2002

GROUP  
1642

**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

**FOREIGN PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

**OTHER (Including Author, Title, Date, Pertinent Pages, etc.)**

	AR	<u>28</u>	Maniatis, T. et al., "Vectors That Express Cloned DNA in <i>Escherichia coli</i> ," Ch. 12, in: <i>Molecular Cloning: A Laboratory Manual</i> , Maniatis, T. et al., eds, Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY, pp. 403-433 (1982).
	AS	<u>28</u>	Marks, J.D. et al., "By-passing Immunization: Human Antibodies from V-gene Libraries Displayed on Phage," <i>J. Mol. Biol.</i> 222:581-597, Academic Press, Inc., New York, NY (December 1991).
	AT	<u>28</u>	Marx, J.L., "Antibodies Made to Order - Chimeric antibodies-which are part mouse and part human-may help solve the problems hindering the therapeutic use of monoclonal antibodies," <i>Science</i> 229:455-456, American Association for the Advancement of Science, Washington, D.C. (August 1985).

EXAMINER

DATE CONSIDERED

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449

**FIRST SUPPLEMENTAL  
INFORMATION DISCLOSURE STATEMENT**

ATTY. DOCKET NO.  
0610.005000I

APPLICATION NO.  
10/040,945

APPLICANT  
ROBINSON et al.

FILING DATE  
January 9, 2002

GROUP  
1642

**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

**FOREIGN PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

**OTHER (Including Author, Title, Date, Pertinent Pages, etc.)**

	AR	<u>29</u>	Max, E.E. et al., "Sequence of five potential recombination sites encoded close to an immunoglobulin κ constant region gene," <i>Proc. Natl. Acad. Sci. USA</i> 76(7):3450-3454, National Academy of Sciences of the USA, Washington, D.C. (1979).
	AS	<u>29</u>	McCafferty, J. et al., "Phage antibodies: filamentous phage displaying antibody variable domains," <i>Nature</i> 348:552-554, Macmillan Publishers Ltd., London, England (December 1990).
	AT	<u>29</u>	McCarthy, J.E.G. et al., "Translational initiation frequency of atp genes from Escherichia coli: identification of an intercistronic sequence that enhances translation," <i>EMBO J.</i> 4(2):519-526, IRL Press Limited, Oxford, England (February 1985).

EXAMINER

DATE CONSIDERED

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449

FIRST SUPPLEMENTAL  
INFORMATION DISCLOSURE STATEMENTATTY. DOCKET NO.  
0610.005000IAPPLICATION NO.  
10/040,945APPLICANT  
ROBINSON et al.FILING DATE  
January 9, 2002GROUP  
1642

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>30</u>	Messing, J. et al., "A system for shotgun DNA sequencing," Nucl. Acids Res. 9(2):309-321, Oxford University Press, Oxford, England (1981).
	AS	<u>30</u>	Miller, J. et al., "Structural alterations in J regions of mouse immunoglobulin $\lambda$ genes are associated with differential gene expression," Nature 295:428-430, Macmillan Publishers Ltd., London, England (1982).
	AT	<u>30</u>	Morrison, S.L. et al., "Chimeric human antibody molecules: Mouse antigen-binding domains with human constant region domains," Proc. Natl. Acad. Sci. USA 81:6851-6855, National Academy of Sciences of the USA, Washington, D.C. (November 1984)

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449

**FIRST SUPPLEMENTAL  
INFORMATION DISCLOSURE STATEMENT**

ATTY. DOCKET NO.  
0610.005000I

APPLICATION NO.  
10/040,945

APPLICANT  
ROBINSON et al.

FILING DATE  
January 9, 2002

GROUP  
1642

**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

**FOREIGN PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

**OTHER (Including Author, Title, Date, Pertinent Pages, etc.)**

AR	<u>31</u>	Morrison, S.L., "Transfectomas Provide Novel Chimeric Antibodies," <i>Science</i> 229:1202-1207, American Association for the Advancement of Science, Washington, D.C. (September 1985).
AS	<u>31</u>	Morrison, S.L. and V.T. Oi, "Genetically Engineered Antibody Molecules," <i>Adv. Immunol.</i> 44:65-92, Academic Press, New York, NY (January 1989).
AT	<u>31</u>	Morrison, S.L., "In Vitro Antibodies: Strategies for Production and Application," <i>Ann. Rev. Immunol.</i> 10:239-265, Annual Reviews, Inc., Palo Alto, CA (April 1992).

EXAMINER

DATE CONSIDERED

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449

FIRST SUPPLEMENTAL  
INFORMATION DISCLOSURE STATEMENTATTY. DOCKET NO.  
0610.005000IAPPLICATION NO.  
10/040,945APPLICANT  
ROBINSON et al.FILING DATE  
January 9, 2002GROUP  
1642

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>32</u>	Mullinax, R.L. et al., "Identification of human antibody fragment clones specific for tetanus toxoid in a bacteriophage $\lambda$ immunoexpression library," <i>Proc. Natl. Acad. Sci. USA</i> 87:8095-8099, National Academy of Sciences of the USA, Washington, D.C. (October 1990).
	AS	<u>32</u>	Munro, A., "Uses of chimaeric antibodies," <i>Nature</i> 312:597, Macmillan Publishers Ltd., London, England (December 1984).
	AT	<u>32</u>	Nagahari, K. et al., "Secretion into the culture medium of a foreign gene product from <i>Escherichia coli</i> : use of the <i>ompF</i> Gene for Secretion of Human $\beta$ -endorphin," <i>EMBO J.</i> 4:3589-3592, IRL Press Limited, Oxford, England (December 1985).

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449

FIRST SUPPLEMENTAL  
INFORMATION DISCLOSURE STATEMENTATTY. DOCKET NO.  
0610.005000IAPPLICATION NO.  
10/040,945APPLICANT  
ROBINSON et al.FILING DATE  
January 9, 2002GROUP  
1642

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>33</u>	Neuberger, M.S. et al., "Recombinant antibodies possessing novel effector functions," <i>Nature</i> 312:604-408, Macmillan Publishers Ltd., London, England (December 1984).
	AS	<u>33</u>	Neuberger, M.S. et al., "A hapten-specific chimeric IgE antibody with human physiological effector function," <i>Nature</i> 314:268-270, Macmillan Publishers Ltd., London, England (March 1985).
	AT	<u>33</u>	Nikaido, N. et al., "Cloning of a Pectate Lyase Gene from <i>Erwinia cartovora</i> and its Expression in <i>Escherichia coli</i> ," <i>J. Gen. Appl. Microbiol.</i> 31(3):293-296, Microbiology Research Foundation, Tokyo, Japan (June 1985).

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449

FIRST SUPPLEMENTAL  
INFORMATION DISCLOSURE STATEMENTATTY. DOCKET NO.  
0610.005000IAPPLICATION NO.  
10/040,945APPLICANT  
ROBINSON et al.FILING DATE  
January 9, 2002GROUP  
1642

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>34</u>	Nikaido, N. et al., "DNA Sequence of the promoter and NH <sub>2</sub> -Terminal Regions of the Pectate Lyase Gene from <i>Erwinia carotovora</i> ," <i>J. Gen. Appl. Microbiol.</i> 31(6):573-576, Microbiology Research Foundation, Tokyo, Japan (December 1985).
	AS	<u>34</u>	Nilsson, B. et al., "Immobilization and purification of enzymes with staphylococcal protein A gene fusion vectors," <i>EMBO J.</i> 4(4):1075-1080, IRL Press Limited, Oxford, England (June 1985).
	AT	<u>34</u>	Novagen Catalog, "pET System," pp. 5-7 and 11, Novagen, Inc., Madison, WI (November 1993).

EXAMINER

DATE CONSIDERED

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449

FIRST SUPPLEMENTAL  
INFORMATION DISCLOSURE STATEMENTATTY. DOCKET NO.  
0610.005000IAPPLICATION NO.  
10/040,945APPLICANT  
ROBINSON *et al.*FILING DATE  
January 9, 2002GROUP  
1642

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>35</u>	Ochi, A. <i>et al.</i> , "Functional immunoglobulin M production after transfection of cloned immunoglobulin heavy and light chain genes into lymphoid cells," <i>Proc. Natl. Acad. Sci. USA</i> 80:6351-6355, National Academy of Sciences of the USA, Washington, D.C. (1983).
	AS	<u>35</u>	Ohmura, K. <i>et al.</i> , "Length and structural effect of signal peptides derived from <i>Bacillus subtilis</i> $\alpha$ -amylase on secretion of <i>Escherichia coli</i> $\beta$ -lactamase in <i>B. subtilis</i> cells," <i>Nucl. Acids Res.</i> 12(13):5307-5319, Oxford University Press, Oxford, England (July 1984).
	AT	<u>35</u>	Oi, V.T. and S.L. Morrison, "Chimeric Antibodies," <i>BioTechniques</i> 4(3):214-221. Eaton Publishing Company, Natick, MA (May/June 1986).

EXAMINER

DATE CONSIDERED

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.





FORM PTO-1449

FIRST SUPPLEMENTAL  
INFORMATION DISCLOSURE STATEMENTATTY. DOCKET NO.  
0610.005000IAPPLICATION NO.  
10/040,945APPLICANT  
ROBINSON et al.FILING DATE  
January 9, 2002GROUP  
1642

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>36</u>	Oka, T. et al., "Synthesis and secretion of human epidermal growth factor by Escherichia coli," <i>Proc. Natl. Acad. Sci.</i> 82:7212-7216, National Academy of Sciences of the USA, Washington, D.C. (November 1985).
	AS	<u>36</u>	Orlandi, R. et al., "Cloning immunoglobulin variable domains for expression by the polymerase chain reaction," <i>Proc. Natl. Acad. Sci. USA</i> 86(10):3833-3837, National Academy of Sciences of the USA, Washington, D.C. (May 1989).
	AT	<u>36</u>	Pack, P. and A. Plückthun, "Miniantibodies: Use of Amphipathic Helices To Produce Functional, Flexibly Linked Dimeric F <sub>v</sub> Fragments with High Avidity in Escherichia coli," <i>Biochem.</i> 31(6):1579-1584, American Chemical Society, Washington, D.C. (February 1992).

EXAMINER

DATE CONSIDERED

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449

FIRST SUPPLEMENTAL  
INFORMATION DISCLOSURE STATEMENTATTY. DOCKET NO.  
0610.005000IAPPLICATION NO.  
10/040,945APPLICANT  
ROBINSON et al.FILING DATE  
January 9, 2002GROUP  
1642

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>37</u>	Pages, J.-M. et al., "Conditions Leading to Secretion of a Normally Periplasmic Protein in <i>Escherichia coli</i> ," <i>J. Bacteriology</i> . 169(4):1386-1390, American Society for Microbiology, Baltimore, MD (April 1987).
	AS	<u>37</u>	Paulus, H., et al., "Preparation and Biomedical Applications of Bispecific Antibodies," <i>Behring Inst. Mitt.</i> 78:118-132, Lahn Behringwerke Ag, Marburg, Germany (December 1985).
	AT	<u>37</u>	Plückthun, A. and J.R. Knowles, "The Consequences of Stepwise Deletions from the Signal-processing Site of $\beta$ -Lactamase," <i>J. Biol. Chem.</i> 262(9):3951-3957, American Society for Biochemistry and Molecular Biology, Inc., Baltimore, MD (March 1987).

EXAMINER

DATE CONSIDERED

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449

FIRST SUPPLEMENTAL  
INFORMATION DISCLOSURE STATEMENTATTY. DOCKET NO.  
0610.005000IAPPLICATION NO.  
10/040,945APPLICANT  
ROBINSON et al.FILING DATE  
January 9, 2002GROUP  
1642

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>38</u>	Plückthun, A. and A. Skerra, "Expression of Functional Antibody F <sub>v</sub> and Fab Fragments in Escherichia coli," <i>Meth. Enzymol.</i> 178:497-515, Academic Press Inc., New York, NY (November 1989).
	AS	<u>38</u>	Plückthun, A., "Antibody Engineering: Advances From The Use Of Escherichia coli Expression Systems," <i>Bio/Technol.</i> 9:545-551, Nature Publishing Co., New York (June 1991).
	AT	<u>38</u>	Plückthun, A. et al., "Engineering of Antibodies with a Known Three-dimensional Structure," <i>Cold Spring Harbor Symp. Quant. Biol.</i> LII:105-112, Abstracts and papers presented at the LII Cold Spring Harbor Symposium on Quantitative Biology, May 27-June 3, 1987, Cold Spring Harbor Laboratory, Cold Spring Harbor, New York, (1987).

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449

FIRST SUPPLEMENTAL  
INFORMATION DISCLOSURE STATEMENTATTY. DOCKET NO.  
0610.005000IAPPLICATION NO.  
10/040,945APPLICANT  
ROBINSON et al.FILING DATE  
January 9, 2002GROUP  
1642

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>39</u>	Proudfoot, K.A. et al., "Purification of Recombinant Chimeric B72.3 Fab' and F(ab) <sub>2</sub> Using Streptococcal Protein G," <i>Protein Expr. Purif.</i> 3:368-373, Academic Press, Duluth, MN (October 1992).
	AS	<u>39</u>	Pugsley, A., "Applications of protein targeting," Ch. IX, in: <i>Protein Targeting</i> , Pugsley, A. ed., New York: Academic Press, Inc. 229-240 (June 1989).
	AT	<u>39</u>	Pugsley, A., "Early stages in the secretory pathway," Ch. III, in: <i>Protein Targeting</i> , Pugsley, A. ed., New York: Academic Press, Inc. pp.45-111 and 241-267 (June 1989).

EXAMINER

DATE CONSIDERED

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

FORM PTO-1449  <b>FIRST SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT</b>	ATTY. DOCKET NO. 0610.005000I	APPLICATION NO. 10/040,945
	APPLICANT ROBINSON et al.	
	FILING DATE January 9, 2002	GROUP 1642

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

FOREIGN PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
	AR	<u>40</u>	Queen, C. and D. Baltimore, "Immunoglobulin Gene Transcription Is Activated by Downstream Sequence Elements," Cell 33(3):741-748, Cell Press, Cambridge, MA (1983).
	AS	<u>40</u>	Ravetch, J.V. et al., "Structure of the Human Immunoglobulin $\mu$ Locus: Characterization of Embryonic and Rearranged J and D Genes," Cell 27:583-591, Cell Press, Cambridge, MA (1981).
	AT	<u>40</u>	Roberts, T.M., "A lac Promoter System For The Overexpression of Prokaryotic And Eukaryotic Genes In <i>E. coli</i> ," Ch. 28, in: <i>Promoters: Structure and Function</i> , Rodriquez, R.L., ed., New York: Praeger Publishers pp.452-461 (1982).

EXAMINER	DATE CONSIDERED
----------	-----------------

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449  <u>FIRST SUPPLEMENTAL</u> <u>INFORMATION DISCLOSURE STATEMENT</u>	ATTY. DOCKET NO. 0610.005000I	APPLICATION NO. 10/040,945
	APPLICANT ROBINSON et al.	
	FILING DATE January 9, 2002	GROUP 1642

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

FOREIGN PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
	AR	<u>41</u>	Rodrigues, M.L. et al., "Engineering Fab' Fragments for Efficient F(ab) <sub>2</sub> Formation in <i>Escherichia coli</i> and for Improved In Vivo Stability," <i>J. Immunol.</i> 151(12):6954-6961, American Association of Immunologists, Baltimore, MD (December 1993).
	AS	<u>41</u>	Rosenwasser, T.A. et al., "Compartmentalization of Mammalian Proteins Produced in <i>Escherichia coli</i> ," <i>J. Biol. Chem.</i> 265(22):13066-13073, American Society for Biochemistry and Molecular Biology, Inc., Baltimore, MD (August 1990).
	AT	<u>41</u>	Sahagan, B.G. et al., "A Genetically Engineered Murine/Human Chimeric Antibody Retains Specificity For Human Tumor-Associated Antigen," <i>J. Immunol.</i> 137(3):1066-1074, American Association of Immunologists, Baltimore, MD (August 1986).

EXAMINER	DATE CONSIDERED
----------	-----------------

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449  <u>FIRST SUPPLEMENTAL</u> <u>INFORMATION DISCLOSURE STATEMENT</u>	ATTY. DOCKET NO. 0610.005000I	APPLICATION NO. 10/040,945
	APPLICANT ROBINSON et al.	
	FILING DATE January 9, 2002	GROUP 1642

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

FOREIGN PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
	AR	<u>42</u>	Sakano, H. et al., "Sequences at the somatic recombination sites of immunoglobulin light-chain genes," <i>Nature</i> 280:288-294, Macmillan Publishers Ltd., London, England (1979).
	AS	<u>42</u>	Sasty, L. et al., "Cloning of the immunological repertoire in <i>Escherichia coli</i> for generation of monoclonal antibodies: Construction of a heavy chain variable region-specific cDNA library," <i>Proc. Natl. Acad. Sci. USA</i> 86(15):5728-5732, National Academy of Sciences of the USA, Washington, D.C. (August 1989).
	AT	<u>42</u>	Schein, C.H., "Production Of Soluble Recombinant Proteins In Bacteria," <i>Bio/Technol.</i> 7:1141-1148, Nature Publishing Co., New York, NY (November 1989).

EXAMINER	DATE CONSIDERED
----------	-----------------

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449  <u>FIRST SUPPLEMENTAL</u> <u>INFORMATION DISCLOSURE STATEMENT</u>	ATTY. DOCKET NO. 0610.005000I	APPLICATION NO. 10/040,945
	APPLICANT ROBINSON et al.	
	FILING DATE January 9, 2002	GROUP 1642

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

FOREIGN PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
	AR	<u>43</u>	Schoner, B.E. et al., "Translation of a synthetic two-cistron mRNA in <i>Escherichia coli</i> ," <i>Proc. Natl. Acad. Sci. USA</i> 82(22):8506-8510, National Academy of Sciences of the USA, Washington, D.C. (November 1986).
	AS	<u>43</u>	Seno, M. et al., "Molecular cloning and nucleotide sequencing of human immunoglobulin $\epsilon$ chain cDNA," <i>Nucl. Acids Res.</i> 11(3):719-726, Oxford University Press, Oxford, England (1983).
	AT	<u>43</u>	Sharon, J. et al., "Expression of a $V_H C_K$ chimeric protein in mouse myeloma cells," <i>Nature</i> 309:364-367, Macmillan Publishers Ltd., London, England (May 1984).

EXAMINER	DATE CONSIDERED
----------	-----------------

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.





FORM PTO-1449

FIRST SUPPLEMENTAL  
INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.  
0610.005000IAPPLICATION NO.  
10/040,945APPLICANT  
ROBINSON et al.FILING DATE  
January 9, 2002GROUP  
1642

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>44</u>	Sharon, J. et al., "Expression of a V <sub>H</sub> C <sub>K</sub> chimeric protein in mouse myeloma cells," Chem. Abst. 101(7):147 Abstr. 49464x, Chemical Abstracts Services, Columbus, OH (August 1984).
	AS	<u>44</u>	Shiroza, T. et al., "Synthesis and secretion of biologically active mouse interferon- $\beta$ using <i>Bacillus subtilis</i> $\alpha$ -amylase secretion vector," Gene 34:1-8, Elsevier Science Publishers B.V., Amsterdam, Netherlands (January 1985).
	AT	<u>44</u>	Sjöström, M. et al., "Signal peptide amino acid sequences in <i>Escherichia coli</i> contain information related to final protein localization. A multivariate data analysis," EMBO J. 6(3):823-831, IRL Press Limited, Oxford, England (March 1987).

EXAMINER

DATE CONSIDERED

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449  <u>FIRST SUPPLEMENTAL</u> <u>INFORMATION DISCLOSURE STATEMENT</u>	ATTY. DOCKET NO. 0610.005000I	APPLICATION NO. 10/040,945
	APPLICANT ROBINSON et al.	
	FILING DATE January 9, 2002	GROUP 1642

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

FOREIGN PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
	AR	<u>45</u>	Skerra, A. and A. Plückthun, "Assembly of a Functional Immunoglobulin F <sub>v</sub> Fragment in <i>Escherichia coli</i> ," Science 240:1038-1041, American Association for the Advancement of Science, Washington, D.C. (May 1988).
	AS	<u>45</u>	Skerra, A. and A. Plückthun, "Secretion and in vivo folding of the F <sub>ab</sub> Fragment of the antibody McPC603 in <i>Escherichia coli</i> : influence of disulphides and cis-prolines," Prot. Engin. 4(8):971-979, Oxford University Press, Oxford, England (December 1991).
	AT	<u>45</u>	Stader, J.A. and T.J. Silhavy, "Engineering <i>Escherichia coli</i> to Secrete Heterologous Gene Products," Meth. Enzymol. 185:166-187, Academic Press Inc., New York, NY (May 1990).

EXAMINER	DATE CONSIDERED
----------	-----------------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449

FIRST SUPPLEMENTAL  
INFORMATION DISCLOSURE STATEMENTATTY. DOCKET NO.  
0610.005000IAPPLICATION NO.  
10/040,945APPLICANT  
ROBINSON et al.FILING DATE  
January 9, 2002GROUP  
1642

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>46</u>	Studnicka, G.M. et al., "Human-engineered monoclonal antibodies retain full specific binding activity by preserving non-CDR complementarity-modulating residues," <i>Prot. Engin.</i> 7(6):805-814, Oxford University Press, Oxford, England (June 1994).
	AS	<u>46</u>	Sun, L.K. et al., "Chimeric Antibodies with 17-1A-Derived Variable and Human Constant Regions," <i>Hybridoma</i> 5(Suppl. 1):S17-S20, Mary Ann Liebert, Inc., Publishers, New York, NY (February 1986).
	AT	<u>46</u>	Sun, L.K. et al., "Chimeric antibody with human constant regions and mouse variable regions directed against carcinoma-associated antigen 17A-1A," <i>Proc. Natl. Acad. Sci. USA</i> 84:214-218, National Academy of Sciences of the USA, Washington, D.C. (January 1987).

EXAMINER

DATE CONSIDERED

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449  <u>FIRST SUPPLEMENTAL</u> <u>INFORMATION DISCLOSURE STATEMENT</u>	ATTY. DOCKET NO. 0610.005000I	APPLICATION NO. 10/040,945
	APPLICANT ROBINSON et al.	
	FILING DATE January 9, 2002	GROUP 1642

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

FOREIGN PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
AR	<u>47</u>	Takahara, M. et al., "Secretion Of Human Superoxide Dismutase in <i>Escherichia coli</i> ," <i>Bio/Technol.</i> 6:195-198, Nature Publishing Co., New York (February 1988).	
AS	<u>47</u>	Takahara, M. et al., "Structure of Human Immunoglobulin Gamma Genes: Implications for Evolution of a Gene Family," <i>Cell</i> 29:671-679, Cell Press, Cambridge, MA (1982).	
AT	<u>47</u>	Takahara, M. et al., "A DNA sequence for gene expression and protein secretion, and its cloning from pectic acid lyase operon of <i>Erwinia</i> ," <i>Chem. Abstr.</i> 110:187 Abstr. No. 52329y, Chemical Abstracts Service, Columbus, OH (August 1989).	

EXAMINER	DATE CONSIDERED
----------	-----------------

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449  <u>FIRST SUPPLEMENTAL</u> <u>INFORMATION DISCLOSURE STATEMENT</u>	ATTY. DOCKET NO. 0610.005000I	APPLICATION NO. 10/040,945
	APPLICANT ROBINSON et al.	
	FILING DATE January 9, 2002	GROUP 1642

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

FOREIGN PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
	AR	<u>48</u>	Takeda, S. et al., "Construction of chimaeric processed immunoglobulin genes containing mouse variable and human constant region sequences," <i>Nature</i> 314:452-454, Macmillan Publishers Ltd., London, England (April 1985)
	AS	<u>48</u>	Tan, L.K. et al., "A Human-Mouse Chimeric Immunoglobulin Gene With A Human Variable Region Is Expressed In Mouse Myeloma Cells," <i>J. Immunol.</i> 135(5):3564-3567, American Association of Immunologists, Baltimore, MD (November 1985).
	AT	<u>48</u>	Tsujimoto, Y. and C.M. Croce, "Molecular cloning of a human immunoglobulin $\lambda$ chain variable sequence," <i>Nucl. Acids Res.</i> 12(22):8407-8414, Oxford University Press, Oxford, England (November 1984).

EXAMINER	DATE CONSIDERED
----------	-----------------

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449

FIRST SUPPLEMENTAL  
INFORMATION DISCLOSURE STATEMENTATTY. DOCKET NO.  
0610.005000IAPPLICATION NO.  
10/040,945APPLICANT  
ROBINSON et al.FILING DATE  
January 9, 2002GROUP  
1642

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>49</u>	Van Brunt, J., "There's Nothing (Quite) Like the Real Thing," <i>Bio/Technol.</i> 4:835 and 839, Nature Publishing Co., New York (October 1986).
	AS	<u>49</u>	Walter, G. et al., "Antibodies specific for the carboxy- and amino-terminal regions of simian virus 40 large tumor antigen," <i>Proc. Natl. acad. Sci. USA</i> 77:5197-5200, National Academy of Sciences or the USA, Washington, D.C. (1980).
	AT	<u>49</u>	Ward, E.S. et al., "Binding activities of a repertoire of single immunoglobulin variable domains secreted from <i>Escherichia coli</i> ," <i>Nature</i> 341:544-546, Macmillan Publishers LTD., London, England (October 1989).

EXAMINER

DATE CONSIDERED

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449

FIRST SUPPLEMENTAL  
INFORMATION DISCLOSURE STATEMENTATTY. DOCKET NO.  
0610.005000IAPPLICATION NO.  
10/040,945APPLICANT  
ROBINSON et al.FILING DATE  
January 9, 2002GROUP  
1642

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>50</u>	Ward, E.S., "Expression and Purification of Antibody Fragments Using <i>Escherichia coli</i> as a Host," Ch. 6, in: <i>Antibody engineering - A Practical Guide</i> , Borrebaeck, C.A.K., ed., New York: W.H. Freeman and Co. pp.121-137 (July 1991).
	AS	<u>50</u>	Ward, V.K. et al., "Cloning, sequencing and expression of the Fab fragment of a monoclonal antibody to the herbicide atrazine," <i>Prot. Engin.</i> 6(8):981-988, Oxford University Press, Oxford, England (November 1993).
	AT	<u>50</u>	Watson, M.E.E., "Compilation of published signal sequences," <i>Nucl. Acids Res.</i> 12(13):5145-5164, Oxford University Press, Oxford, England (July 1984).

EXAMINER

DATE CONSIDERED

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449  <b>FIRST SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT</b>	ATTY. DOCKET NO. 0610.005000I	APPLICATION NO. 10/040,945
	APPLICANT ROBINSON et al.	
	FILING DATE January 9, 2002	GROUP 1642

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

FOREIGN PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
	AR	<u>51</u>	Weidle, U.H. et al., "Reconstitution of functionally active antibody directed against creatine kinase from separately expressed heavy and light chains in non-lymphoid cells," <i>Gene</i> 51:21-29, Elsevier Science Publishers B.V., Amsterdam, Netherlands (March 1987).
	AS	<u>51</u>	Wetzel, R., "Active immunoglobulin fragments synthesized in <i>E. coli</i> - from Fab to Scantibodies," <i>Prot. Engin.</i> 2(3):169-170, Oxford University Publishers, Oxford, England (September 1988).
	AT	<u>51</u>	Williams, G.T. and M.S. Neuberger, "Production of antibody-tagged enzymes by myeloma cells: application to DNA polymerase I Klenow fragment," <i>Gene</i> 43:319-324, Elsevier Science Publishers B.V., Amsterdam, Netherlands (August 1986).

EXAMINER	DATE CONSIDERED
----------	-----------------

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.





FORM PTO-1449

FIRST SUPPLEMENTAL  
INFORMATION DISCLOSURE STATEMENTATTY. DOCKET NO.  
0610.005000IAPPLICATION NO.  
10/040,945APPLICANT  
ROBINSON et al.FILING DATE  
January 9, 2002GROUP  
1642

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>52</u>	Wood, D.L. and C. Coleclough, "Different joining region J elements of the murine $\kappa$ immunoglobulin light chain locus are used at markedly different frequencies," <i>Proc. Natl. Acad. Sci. USA</i> 81(15):4756-4760, National Academy of Sciences of the USA, Washington, D.C. (August 1984).
	AS	<u>52</u>	Wood, C.R. et al., "The synthesis and in vivo assembly of functional antibodies in yeast," <i>Nature</i> 314:446-449, Macmillan Publishers Ltd., London, England (April 1985).
	AT	<u>52</u>	Zapata, G. et al., "Engineering linear F(ab') <sub>2</sub> fragments for efficient production in <i>Escherichia coli</i> and enhanced antiproliferative activity," <i>Prot. Engin.</i> 8(10):1057-1062, Oxford University Press, Oxford, England (October 1995).

EXAMINER

DATE CONSIDERED

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449

FIRST SUPPLEMENTAL  
INFORMATION DISCLOSURE STATEMENTATTY. DOCKET NO.  
0610.005000IAPPLICATION NO.  
10/040,945APPLICANT  
ROBINSON et al.FILING DATE  
January 9, 2002GROUP  
1642

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>53</u>	Zemel-Dreassen, O. and A. Zamir, "Secretion and processing of an immunoglobulin light chain in <i>Escherichia coli</i> ," <i>Gene</i> 27:315-322, Elsevier Science Publishers B.V., Amsterdam, Netherlands (March 1984).
	AS	<u>53</u>	Appendix A to Patentee's [Celltech Therapeutics Limited] Letter of 8 <sup>th</sup> of May 1996, filed in reply to oppositions against European Patent No. 0 120 694.
	AT	<u>53</u>	Dialog World Patent Index File 351 English Language Abstract for JP 60-155132 (Document No AL3).

EXAMINER

DATE CONSIDERED

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449

FIRST SUPPLEMENTAL  
INFORMATION DISCLOSURE STATEMENTATTY. DOCKET NO.  
0610.005000IAPPLICATION NO.  
10/040,945APPLICANT  
ROBINSON et al.FILING DATE  
January 9, 2002GROUP  
1642

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>54</u>	Dialog World Patent Index File 351 English Language Abstract for JP 61-47500 (Document No AN3).
	AS	<u>54</u>	Dialog World Patent Index File 351 English Language Abstract for JP 62-502586 (Document No AN5).
	AT	<u>54</u>	Dialog World Patent Index File 351 English Language Abstract for JP 63-068087 (Document No AO5).

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449  <u>FIRST SUPPLEMENTAL</u> <u>INFORMATION DISCLOSURE STATEMENT</u>	ATTY. DOCKET NO. 0610.005000I	APPLICATION NO. 10/040,945
	APPLICANT ROBINSON et al.	
	FILING DATE January 9, 2002	GROUP 1642

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

FOREIGN PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
AR	<u>55</u>	Dialog World Patent Index File 351 English Language Abstract for EP 0 324 162 (Document No AO6).	
AS	<u>55</u>	Co-pending U.S. Application No. 09/722,425, filed, November 28, 2000.	
AT			

EXAMINER	DATE CONSIDERED
----------	-----------------

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.